



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



Federally Enforceable District-Origin Operating Permit (FEDOOP)

Permit No.: O-1128-19-F

Plant ID: 1128

Effective Date: 09/24/2019

Expiration Date: 09/30/2024

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: Multi Packaging Solutions
dba Westrock
1703 South Brook St.
Louisville, KY 40208

Owner: MPS of Kentucky, LLC
5800 West Grand River Ave
Lansing, MI 48906

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve months and no later than ninety days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	VOC	Single HAP
Tons/year:	100	10

Application No.:

See **Application and Related Documents** table.

Public Notice Date:

08/21/2019

Permit writer: Rick Williams



Air Pollution Control Officer
9/24/2019

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Permit Revisions and Changes

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
28252-14-F	07/09/2014	07/13/2014	Initial	Initial FEDOOP permit, incorporating outstanding operating and construction permits to ensure accurate list of operating presses.
28252-14-F (R1)	N/A	07/19/2016	Admin	Update IA list, correct inaccurate internal cross references and external hyperlinks.
28252-14-F (R2)	06/14/2017	07/18/2017		<p><u>Significant Revision</u> <u>General Condition 10:</u> Delete reference to greenhouse gasses. (Underlying regulation has been stayed.) <u>Emission unit U1:</u> Remove emission point E5 and add emission point E5a pursuant to construction permit C-1128-1001-17-F</p>
				<p><u>Administrative Revision</u> <u>U1:</u> In all sections, update TAC language to current standards. No limits or requirements are changed. <u>U1-S1.VOC:</u> Revise text for annual per-emission-point emission limit, for clarity. No limits are changed. Update caption in Table 3 to reflect correct construction permit number. <u>U1-S2.VOC:</u> Revise text for annual per-emission-point monitoring and recordkeeping requirements, for clarity. No requirements are changed. <u>U2 Equipment table:</u> Update bindery equipment to reflect new equipment moved from Shorewood Packaging, Inc (ID#0885) and equipment removed from facility. <u>U3:</u> Add emission unit to capture insignificant activities with applicable regulations. <u>Unit IA-EG:</u> Deleted. Previous permit included generic emergency generator language, although there were no emergency generators actually present. <u>Insignificant Activity table:</u> Add newly identified insignificant activities. <u>Trivial Activities table:</u> Added <u>Source-wide Activities table:</u> Added. Includes emergency generators with negligible emissions and no applicable requirements. <u>Attachment A-Calculation Methodology:</u> Pages added for clarity</p>
O-1128-19-F	08/21/2019	09/24/2019	Renewal	Entire permit. Revise description of E5a from construction permit to reflect actual equipment installed. Update conditions to current standards, as necessary Name change (oB# 91286)

Construction Permit Summary

Permit No.	Issue Date	Description
356-94-O	06/30/1997	Issued to Hamilton Printing Company. Eight Printing presses. (None still operating at this location.)
251-01-C	02/12/2001	Issued to Hamilton Printing Co. Install 3 printing presses (None still operating at this location.)
252-01-O	02/28/2002	Issued to Hamilton Printing Company. Six lithographic presses. (None still operating at this location)
110-04-C	09/30/2004	Issued to Hamilton Printing Co. Install 1 Komori 4-color press, replacing earlier 6-color press. (No longer operating at this location.)
244-05-C	07/15/2005	Issued to Hamilton Printing Co. Install one Heidelberg SM102-8P, 8-color press.
371-05-C	12/23/2005	Issued to Hamilton Printing Co. Install one Heidelberg SM102-8P, 8 color press.
180-06-C	07/31/2006	Install one Heidelberg 102CD-LX 6-color press. This permit lists one Komori 141 press, since removed and the two Heidelberg presses installed in 2005.
693-07-C	01/07/2008	Construction permit for existing bindery equipment not previously permitted. Equipment includes: 3 stitchers, 5 folders, 2 paper cutters, and 1 scrap baler with bag filter system.
478-08-C	07/31/2008	Install Heidelberg SM102-2-P 2-color printer.
27-10-C	02/22/2010	Comprehensive construction permit, listing: Heidelberg SM102-2-P [see 478-08-C] Heidelberg CD102-6+LX [NEW] Heidelberg 102CD-LX (640H) [see 108-06-C] Heidelberg SM102-8P (840A) [see 244-05-C] Heidelberg SM102-8P (840B) [see 371-05-C]
32026-11-C	06/01/2011	Install one Heidelberg Speedmaster XL105 (841). Also lists presses in 27-10-C, deleting only press designated (840A).
C-1128-1001-17-F	05/30/2017	Remove Heidelberg SM-102-8P press (E5), install Heidelberg XL 105-8P press (E5a) while retaining designation 840B, list other existing presses for traceability of BACT limits. (See footnote 1 in the construction permit.) [The operating permit renewal application notes that the equipment actually delivered and installed is a Heidelberg XL106, with the same operating characteristics as the XL105]

Application and Related Documents

Document Number	Date	Description
98465	05/21/2019	Calculation of fountain solution day tank emissions
98517	05/29/2019	New ink inquiry
98518	05/29/2019	MSDS for new ink
98539	05/29/2019	APCD response regarding HAP content of new inks
98540	05/29/2019	Additional information of new ink from MPS
98547	05/29/2019	Renewal application
98684	06/06/2019	New ink data and inquiry
98690	06/11/2019	New ink approved for testing
oB 3228	08/05/2019	Transmittal of draft permit prior to Public Comment period
oB 91240	08/20/2019	Company comments on pre-public comment draft
oB 91253	08/20/2019	APCD response to company comments
oB 91257	08/20/2019	Additional APCD response to company comments
oB 91286	08/20/2019	Company submission of AP-100A for name change

Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors</i> , published by U.S.EPA
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
(M)SDS	- (Material) Safety Data Sheet
NAICS	- North American Industry Classification System
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
- G2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
- G3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.
- G4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.
- G5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
- G6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

- G7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
- G8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.
- G9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.
- G10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM₁₀, PM_{2.5}, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.
- G11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G12. Unless specified elsewhere in this permit, the owner or operator shall submit semi-annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All compliance reports shall include the following per Regulation 2.17, section 3.5.
- A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
 - The signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

G13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.06	Permit Requirements – Other Sources
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

- G14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.17	Federally Enforceable District Origin Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

- G15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
- G16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
- G17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

***Air Pollution Control District
701 W. Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137***

Plantwide Requirements

Facility Description

Lithographic printing operation with five presses and four serializers, and a binding facility. VOC, total HAP and single HAP potential emissions all exceed major source thresholds.

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Plantwide Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

- i. The owner or operator shall not allow or cause plantwide emissions of any single HAP to equal or exceed 10 tons during any consecutive 12-month period. [Regulation 2.17, section 5.1]

b. TAC

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.¹ The plantwide modeled risk summary is presented in Table 1. [Regulations 5.00 and 5.21]

Plantwide Total	All New and Modified ²	
	Actual	Goal
Industrial Total EAG _C	0.244	38
Industrial Total EAG _{NC}	0.015	N/A
Non-Industrial Total EAG _C	0.244	3.8
Non-Industrial Total EAG _{NC}	0.015	N/A

Table 1. Plantwide summary

- ii. The modeled risk for each emission point and each compound that is not *de minimis* is shown in Table 2. [Regulations 5.00 and 5.21]

TAC	E1		E2		E3		E4		E5a	
	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}
Benzene	0.021	0.000	0.015	0.000	0.015	0.000	0.020	0.000	0.020	0.000
Ethylbenzene	0.035	0.000	0.025	0.000	0.025	0.000	0.034	0.000	0.034	0.000
Trimethylbenzene	---	0.003	---	0.002	---	0.002	---	0.003	---	0.003

Table 2. Individual modeled risk for non-de minimis emission points and compounds. Industrial and non-industrial risks are equal. ³

¹ Xylene, hexane and toluene are emitted from printing operations at *de minimis* levels. Emissions of benzene, ethylbenzene, and 1,2,4 trimethylbenzene exceed *de minimis* levels. Tier 3 (SCREEN3) modeling was performed for each emission unit with non-*de minimis* TAC emissions.

² "New or modified process or process equipment" means a process or process equipment for which the District received an administratively complete construction permit application on or after July 1, 2005... [Regulation 5.00, section 1.20]. All covered equipment was installed in or after July 2005.

³ The maximum modeled concentration occurs close to the border between industrial and non-industrial property, just on the non-industrial side of the border. Thus, using the same concentration for both property types will slightly over-estimate the calculated risk for industrial property.

- iii. The owner or operator shall perform a new Environmental Acceptability (EA) Demonstration or *de minimis* determination when the following events occur and submit the EA Demonstration on the schedule noted in the reporting section:⁴
 - (1) An application to construct or modify a process or process equipment is submitted to the District pursuant to Regulation 2.03, 2.04 or 2.05. [Regulation 5.21, section 4.22.1]
 - (2) A modification of any physical modeling parameters such as fence lines or building heights that are not otherwise subject to the requirements in this permit that affects the demonstration of compliance. [Regulation 5.21, section 4.22.2] or
 - (3) A change occurs in the process or process equipment, including raw material or fuel type substitution. [Regulation 5.21, section 4.22.3]
- iv. When a new TAC is introduced or for any existing TAC which does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values as part of any aforementioned EA Demonstration. The form, located in Attachment B, may be used for determining BAC and *de minimis* values.
[Regulation 5.20, sections 3 and 4]

c. VOC

- i. The owner or operator shall not allow or cause total plantwide VOC emissions to equal or exceed 100 tons during any consecutive 12-month period. [Regulation 2.17, section 5.1]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

- i. Monthly calculate and record the plantwide consecutive 12-month emissions of each single HAP and all combined HAPs for each month in the reporting period.

⁴ Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to perform a new Environmental Acceptability Demonstration.

b. TAC

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to, (M)SDS, analysis of emissions, and/or modeling results.

c. VOC

- i. Monthly maintain records, including calculations, which show the plantwide VOC emissions during each calendar month and each 12-consecutive-month period to demonstrate compliance with the plantwide annual emission limit.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

- i. Plantwide consecutive 12-month emissions of each single HAP for each month in the reporting period.

b. TAC

- ii. The owner or operator shall submit new EA Demonstrations involving applications to construct or modify with the construction permit application. [Regulation 5.21, section 4.22.1]
- iii. The owner or operator shall submit new EA Demonstrations involving modification of any physical modeling parameter, such as fence lines or building heights, that are not otherwise subject to the permit requirements for that facility that affects the demonstration of compliance with the operating permit renewal application. [Regulation 5.21, section 4.22.2]
- iv. The owner or operator shall submit new EA Demonstrations involving a change in a process or process equipment, including raw material or fuel type substitution before making the change. [Regulation 5.21, section 4.22.3]
 - (1) Prior approval by the District is not required if the change does not result in emissions that exceed an EA goal, does not cause emissions of a TAC to no longer be de minimis, and a permit modification is not required. In this case, the new EA Demonstration shall be submitted within 6 months of the change.

c. VOC

- i. The calendar month and consecutive 12-month total plantwide VOC emissions for each month in the reporting period.
- ii. Identification of all periods of exceeding a VOC emission limit or standard specified, including the quantity of excess emissions.

Emission Unit U1: Printing Presses**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	All

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E1	Heidelberg Speedmaster XL 105: 8-color lithographic printing press, 15,000 sheets/hr, 29" x 41"	2011	STAR 7.25	N/A	Fugitive
E2	Heidelberg CD102-6+LX: 6-color lithographic printing press, 15,000 sheets/hr, 28" x 40"	2010			
E3	Heidelberg 102CD LX: 6-color lithographic printing press, 15,000 sheets/hr, 28" x 40"	2006			
E4	Heidelberg SM 102-8P (840A): 8-color lithographic printing press, 13,000 sheets/hr, 28" x 40"	2005			
E5a	Heidelberg XL106: 8-color lithographic printing press, 15,000 sheets/hr, 28" x 40"	2017			

U1 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

- i. See Plantwide Conditions

b. TAC

- i. See Plantwide Conditions ⁵

c. VOC

- i. See Plantwide Conditions
- ii. The owner or operator shall not operate equipment subject to Regulation 7.25 (E1, E2, E3, E4, E5a) unless the equipment is equipped with and utilizes Best Available Control Technology (BACT). The District has determined that compliance with the following VOC requirements represent Best Available Control Technology (BACT).
[Regulation 7.25, section 3.1]

Raw Material	BACT Limit
Conventional Inks ⁶	18% by weight VOC
Specialty Inks (including, but are not limited to, metallic, magnetic, fluorescent, and iridescent inks)	25% by weight VOC 10% of total ink usage
UV inks	3% by weight VOC
Fountain Solution	Non-Vinyl: 5% by weight VOC as applied OR 5% by weight if Chilled Fountain Solution at 60°F max. Vinyl or Plastic Sheets: 10% by weight as applied
Blanket Wash/Roller Wash	70% by weight VOC as applied or vapor pressure ≤ 10 mm Hg at 68°F
Water-based Coatings (Aqueous)	1.0 lb VOC/gal as applied

Table 3 BACT limits for offset lithographic printing as determined in permit C-1128-1001-17-F, effective 30 May 2017.

⁵ A determination was made that emissions of hexane, xylene, and toluene are *de minimis* at the maximum uncontrolled emission rate. SCREEN3 modeling was performed for benzene, ethylbenzene, and 1,2,4-trimethylbenzene. All were shown to meet the relevant Environmental Acceptability goals at the maximum uncontrolled emission rate.

⁶ Per EPA guidance document for Lithographic Printing and Letterpress Printing dated September 2006, the document defines varnishes as un-pigmented offset lithography inks, and therefore are to be included in the conventional ink category.

- iii. The owner or operator shall not exceed these annual emission limits:
 - (1) For Emission Point E1, 14.5 tons during any consecutive 12-month period.^{7,8} [Construction Permit 32026-11-C]
 - (2) For Emission Point E2, 14.0 tons during any consecutive 12-month period.^{7,8} [Construction Permit 27-10-C]
 - (3) For Emission Point E3, 14.0 tons during any consecutive 12-month period.^{7,8} [Construction Permit 27-10-C]
 - (4) For Emission Point E4, 17.5 tons during any consecutive 12-month period.^{7,8} [Construction Permit 27-10-C]
 - (5) For Emission Points E5a, 17.5 tons during any consecutive 12-month period.^{7,8} [Construction Permit C-1128-1001-17-F]
- iv. If the fountain solution VOC content is greater than 5% by weight as applied, then the owner or operator shall maintain the temperature at or below 60° F for each fountain solution reservoir. [BACT] [Regulation 7.25, section 3]
- v. The owner or operator shall use the least amount of VOC-containing materials needed for the job. [BACT] [Regulation 7.25, section 3]
- vi. The owner or operator shall store all VOC containing materials in closed containers when not in use. This includes materials such as inks, solvents, fountain solution, press cleaning materials, and waste materials including rags, wipes, and paper used to clean press components. [BACT] [Regulation 7.25, section 3]
- vii. The owner or operator shall clean up all spills of any VOC-containing materials no matter how small. If the spill is significant (*i.e.* more than one gallon), the owner or operator shall notify maintenance or professionals for assistance. [BACT] [Regulation 7.25, section 3]

⁷ The District has determined that the use of raw materials that comply with the emission standards in Table 3 represents BACT level of control for the litho presses.

⁸ The lithographic press ton-per-year limits includes emissions from the usage of raw materials listed in Table 3 as well as any other raw materials containing VOC which are not listed. These materials include but are not limited to: plate developer, coatings that are part of the inks, plate gum, blanket fix, silicon spray, and SMK-OD etching solution.

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

- i. See Plantwide Conditions

b. TAC

- i. See Plantwide Conditions

c. VOC

- i. See Plantwide Conditions
- ii. Monthly maintain records of the name, quantity used, and VOC content for each raw material, including inks, blanket wash, roller wash, aqueous coatings, and any other VOC-containing material used during each calendar month.
- iii. Monthly maintain records, including calculations, which show the VOC emissions from each emission point E1 – E5a during each calendar month and 12-consecutive-month period to demonstrate compliance with the emission limit for the emission point.
- iv. In lieu of calculating VOC emissions, the owner or operator may demonstrate compliance with the emission limit for each emission point by complying with the usage rates shown in the following Table 4 - Table 8. If these usage rates are exceeded the owner or operator shall then calculate the total VOC emissions from that press for the preceding 11 months to determine if the annual VOC limit been exceeded. The owner or operator shall continue to calculate the monthly and 12-consecutive-month VOC emissions until the calendar-month usage rate of all VOC containing materials comply with limits in the corresponding table and the 12-consecutive-month emissions are less than the standard set for that emission point.

Raw Material	Calendar Month Usage
Conventional Inks	4000 lb
Specialty Inks	400 lb
Fountain Solution Concentrate	60 gallons
Blanket Wash	300 gallons
Roller Wash	25 gallons

Table 4 Allowable monthly usage for E1 - Heidelberg Speedmaster XL 105.

Raw Material	Calendar Month Usage
Conventional Inks	3000 lb
Specialty Inks	400 lb
Fountain Solution Concentrate	25 gallons
Blanket Wash	275 gallons
Roller Wash	55 gallons
Coating	495 gallons

Table 5 Allowable monthly usage for E2 - Heidelberg CD102-6+LX.

Raw Material	Calendar Month Usage
Conventional Inks	3000 lb
Specialty Inks	400 lb3
Fountain Solution Concentrate	25 gallons
Blanket Wash	275 gallons
Roller Wash	55 gallons
Coating	495 gallons

Table 6 Allowable monthly usage for E3 - Heidelberg 102CD LX.

Raw Material	Calendar Month Usage
Conventional Inks	4000 lb
Specialty Inks	400 lb
Fountain Solution Concentrate	80 gallons
Blanket Wash	360 gallons
Roller Wash	30 gallons

Table 7 Allowable monthly usage for E4 - Heidelberg SM 102-8P (840A).

Raw Material	Calendar Month Usage
Conventional Inks	4000 lb
Specialty Inks	400 lb
Fountain Solution Concentrate	80 gallons
Blanket Wash	360 gallons
Roller Wash	30 gallons

Table 8 Allowable monthly usage for E5 - Heidelberg XL-106.

- v. To demonstrate compliance with the specialty ink standard in Table 3, the owner or operator shall monthly maintain records that show the quantity (in pounds) of specialty inks used during each calendar month and calculate the percentage of the total inks used that are classified as specialty inks as determined on a consecutive 12-month basis.
- vi. Maintain a copy of the material safety data sheet (SDS) for each VOC-containing material used at this plant.

- vii. Determine the VOC content (as applied) of each batch of press-ready fountain solution by one of the following methods:
 - (1) Determine the VOC content of each batch of press-ready fountain solution by calculation. The calculation shall be kept in a batch log. The owner or operator shall document any deviation from the standard fountain solution makeup. Any manual additions of VOC made after each fountain solution batch is prepared shall be documented and the VOC content of the fountain solution shall be calculated to demonstrate compliance with the as applied fountain solution standard specified in Table 3. Documentation of any deviations or manual additions shall include the date and time of occurrence.
 - (2) Alternatively, a sample of the fountain solution (as applied) may be taken from the fountain solution tray or reservoir and measured with a hydrometer, refractometer, or conductivity meter. Within 30 days after the effective date of this permit, the owner or operator shall establish the appropriate compliance indicator ranges for each of the analytical methods above that the source will use to demonstrate compliance with the fountain solution VOC content (as applied). Upon District approval of the established compliance indicator ranges, the owner or operator shall analyze the VOC content of each fresh batch of press ready fountain solution as prepared and after each addition of a VOC containing material to the fountain solution reservoir made following a fresh batch of fountain solution prepared. The owner or operator shall maintain daily records of the results of each observed reading including the date, time, and the name of the person who observed the reading.
- viii. To demonstrate compliance with the fountain solution temperature requirements in Table 3, the owner or operator shall use a thermometer or other temperature detection device capable of reading to within 2.0 Fahrenheit degrees to measure and record the temperature of each fountain solution reservoir once per day for each operating day and keep daily records of the temperature.
- ix. The owner or operator of a lithographic press using automatic cleaning equipment (e.g. blanket washers) that mixes the cleaning solution at the point of application and who must demonstrate the cleaning solution (as applied) complies with Table 3 shall:
 - (1) Operate, maintain, and calibrate the automatic feed equipment to regulate the volume of each cleaning solvent and water (or other non-VOC), as mixed; and
 - (2) Preset the automatic feed equipment so that the consumption rates of the cleaning solvents and water (or other non-VOC), as-applied, comply with plantwide VOC annual emission limits.

- x. For each batch of blanket wash, roller wash, or other cleaning solution not prepared with automatic equipment, the VOC content of the cleaning solution (as applied) shall be determined by calculation. The calculation shall be kept in a batch log. The owner or operator shall document any additions of VOC or deviation from the standard cleaning solution makeup including the date and time of occurrence.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

- i. See Plantwide Conditions

b. TAC

- i. See Plantwide Conditions

c. VOC

- i. See Plantwide Conditions
- ii. Identification of all periods of exceeding a VOC emission limit or standard specified, including the quantity of excess emissions.

Emission Unit U2: Bindery Operations**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	All
7.08	Standards of Performance for New Process Operations	All

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E6	Polar Cutter, model 137XT-AT, 25,000 sheets/hour; 54" x 57.09"	unk ⁹	7.08	N/A	Fugitive
E7a	Polar cutter, model 137AT-X, 25,000 sheets/hour; 54" x 57.09"				
E7b	Polar cutter, model 137AT-X, 25,000 sheets/hour; 54" x 57.09"				
E7c	Polar cutter, model 137ED, 25,000 sheets/hour; 54" x 57.09"				
E7d	Polar cutter, model 115EMC, 25,000 sheets/hour; 54" x 57.09"				
E7e	Polar cutter, model 17AT-X, 25,000 sheets/hour; 54" x 57.09"				
E8a	Stahl folder, model 142F-C-3, 12,000 sheets/hour, 26" x 40"				
E9a	Stahl folder, model 229015, 12,000 sheets/hour, 26" x 40"				
E10	MBO folder, model B30-E-C, designated #2				
E11	MBO folder, model B26-S-C, designated #1				
E12	MBO folder, model B20, designated "Pile"				
E13	MBO folder, model B120				
E14	Stahl folder, model RFH 832				

⁹ The date of installation for this equipment is not known. The equipment was first permitted in 2014 and Regulation 7.08 was applied at that time.

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E15	Muller Stitcher/Trimmer, model 1529.0417 (Bravo-T), 11,000 sheets per hour; 12" x 19"	 	 	 	
E16	Muller Stitcher/Trimmer, model 1529.0416 (Bravo-T Plus), 11,000 sheets per hour; 12" x 19"				
E17	Muller Stitcher/Trimmer, Amrys 15,000 sheets per hour; 20" x 23"				
E19	Vyjuk FA35 insert folder				
E20	Rollem CD perforator				
E21	Rollem TR perforator				
E18	Balemaster Baler, model AT-1-40A; 800 lb/hr			C1	S1

Control Devices

Control ID	Description	Control Efficiency
C1	Shaker filter unit	95%

U2 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Opacity

- i. The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. [Regulation 7.08, section 3.1.1]

b. PM

- i. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr per each piece of equipment based on actual operating hours in a calendar day. [Regulation 7.08, section 3.1.2]
- ii. The owner or operator shall not allow or cause the plantwide PM emissions to exceed 17.5 tons per year. [Construction Permit 693-07-C]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Opacity

- i. For each PM emission point, conduct a monthly one-minute visible emissions survey during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
- ii. At emission points where visible emissions are observed, initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9 visual determination of opacity in accordance with 40 CFR Part 60, Appendix A, within twenty-four hours of the initial observation.
- iii. Maintain records, monthly, of the results of all visible emissions surveys and Methods 9 observations performed. These records shall include the date of each visible emission survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what, if any, corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

b. PM

- i. Monthly perform a visual inspection of the structural and mechanical integrity of the dust collector for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Opacity

- i. Any deviation from the requirement to perform the required monthly visible emission surveys or Method 9 tests.
- ii. Any deviation from the requirement to record the results of each monthly visible emission survey and Method 9 test performed.
- iii. The number, date, and time of each visible emission survey where visible emissions were observed and the results of the Method 9 observation performed.
- iv. Identification of all periods of exceeding the opacity standard.
- v. Description of any corrective action taken for each exceedance of an opacity standard.

b. PM

- i. Any and all periods of failure to perform the monthly visual inspection of the structural and mechanical integrity of the dust collectors.

Emission Unit U3: Serializers**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	All

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E22	MCS Array #1, inkjet serializer	2017 ¹⁰	STAR 7.25	N/A	Fugitive
E23	MCS Array #2, inkjet serializer				
E24	Kirk-Rudy M215B, inkjet serializer				
E25	Kirk-Rudy 219-N UV-inkjet serializer				

¹⁰ The date of installation for this equipment is not known. This equipment was first permitted in 2017 and Regulation 7.25 was applied at that time.

U3 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

- i. See Plantwide Conditions

b. TAC

- i. See Plantwide Conditions ¹¹

c. VOC

- i. See Plantwide Conditions
- ii. The owner or operator shall not allow or cause plantwide VOC emissions, from all affected facilities subject to Regulation 7.25 to equal or exceed 5 tons during any 12-consecutive-month period, unless a BACT is submitted and approved by the District.¹² (Regulation 7.25, and 3.1)

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

- i. See Plantwide Conditions

b. TAC

- i. See Plantwide Conditions

c. VOC

- i. See Plantwide Conditions

¹¹ Each piece of equipment in this emission unit is considered an insignificant activity. TAC emissions from insignificant activities are *de minimis* by definition [regulation 5.21, section 2.3].

¹² The listed equipment does not have the potential to exceed five tons per year of VOC emissions, either individually or in total, operating uncontrolled.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

- i. See Plantwide Conditions

a. TAC

- i. See Plantwide Conditions

b. VOC

- i. See Plantwide Conditions

Emission Unit IA

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	1 – 4
40 CFR 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	60.4233, 4235, 4243
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	63.6590

DISTRICT ONLY ENFORCEABLE REGULATIONS ¹³		
Regulation	Title	Applicable Sections
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
IA-1	15 gallon cold solvent parts washer with secondary reservoir	unk	STAR ¹³ , 6.18	N/A	Fugitive
IA-2	12 HP, gasoline powered portable emergency generator, TroyBuilt 2100 Series	2010	STAR ¹³ , 40 CFR 63, subpart ZZZZ 40 CFR 60, subpart JJJJ	N/A	Fugitive
IA-3	12 HP, gasoline powered portable emergency generator, Generac XP8000	7/2008		N/A	Fugitive

¹³ These regulations apply to TAC emissions regulated by the STAR program. These emissions from insignificant activities are *de minimis* by definition. [Regulation 5.21, section 2.3]

IA Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. Unit Operation

- i. A new or reconstructed stationary reciprocating internal combustion engine (RICE) must meet the requirements of 40 CFR 63, subpart ZZZZ by meeting the requirements of 40 CFR 60, subpart JJJJ. There are no further requirements under 40 CFR 63, subpart ZZZZ. [40 CFR 63.6590(c)(1)]
- ii. Owners or operators of stationary spark-ignition (SI) RICE with a maximum engine power less than or equal to 25 HP manufactured on or after July 1, 2008 must comply with the emission standards in §60.4231(a) for their SI RICE.^{14,15} [40 CFR 60.4233(a)]
- iii. Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.¹⁶ [40 CFR 60.4235]
- iv. If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance. [40 CFR 60.4243(a)]
 - (1) You may not remove or render inoperative any device or element of design installed on or in engines/equipment in compliance with the regulations and You also may not knowingly remove or render inoperative any such device or element of design. [40 CFR 1068.101(b)(1)]
 - (2) You may not knowingly install, any component that bypasses, impairs, defeats, or disables the control of emissions of any regulated pollutant. [40 CFR 1068.101(b)(2)]
 - (3) You may not remove or alter an emission control information label or other required permanent label. [40 CFR 1068.101(b)(7)]
- v. You must operate the emergency stationary ICE according to the following requirements: [40 CFR 60.4243(d)]
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.

¹⁴ Multi Packaging Solutions submitted manufacturer's certification for both engines IA-2 and IA-3 on April 2, 2017.

¹⁵ The relevant emission standards are 13.4 g/kW-hr hydrocarbons and NOx combined, and 519 g/kW-hr for CO.

¹⁶ The refinery average sulfur content is 30 ppm, with an 80 ppm per gallon cap.

- (2) You may operate your emergency stationary ICE for any combination of the following purposes for a maximum of 100 hours per calendar year.
 - (a) Emergency stationary ICE may be operated for maintenance checks and readiness testing.
 - (b) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

b. TAC

- i. See Plantwide conditions.¹⁷

c. VOC

- i. For the cold solvent parts washer (IA-1) the owner or operator shall install, maintain, and operate the control equipment as follows:
[Regulation 6.18, section 4]
 - (1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed to be easily operated with 1 hand. [Regulation 6.18, section 4.1.1]
 - (2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. [Regulation 6.18, section 4.1.2]
 - (3) A permanent, conspicuous label summarizing the Operating Requirements specified in section 4.2 of this Regulation shall be installed on or near the cold cleaner. [Regulation 6.18, section 4.1.3]
 - (4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner.
[Regulation 6.18, section 4.1.4]
 - (5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner.
[Regulation 6.18, section 4.1.6]

¹⁷ Emissions from insignificant activities are *de minimis* by definition. [Regulation 5.21, section 2.3]

- (6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks.
[Regulation 6.18, section 4.1.8]
- ii. For the cold solvent parts washer (IA-1) the owner or operator shall observe at all times the following operating requirements:
[Regulation 6.18, section 4.2]
 - (1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. [Regulation 6.18, section 4.2.1]
 - (2) The solvent level in the cold cleaner shall not exceed the fill line.
[Regulation 6.18, section 4.2.2]
 - (3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. [Regulation 6.18, section 4.2.3]
 - (4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses.
[Regulation 6.18, section 4.2.4]
 - (5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner.
[Regulation 6.18, section 4.2.5]
 - (6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities.
[Regulation 6.18, section 4.2.6]
 - (7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner.
[Regulation 6.18, section 4.2.7]
- iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20° C (68° F). [Regulation 6.18, section 4.3.2]

S2. Monitoring and Record Keeping

[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. Unit Operation

- i. Owners and operators of all stationary SI ICE must keep records of the following information: [40 CFR 60.4245(a)]
 - (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (2) Maintenance conducted on the engine.
 - (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

b. TAC

- i. See Plantwide conditions.¹⁸

c. VOC

- i. For the cold solvent parts washer (IA-1) the owner or operator shall maintain records that include the following for each solvent purchase: [Regulation 6.18, section 4.4.2]
 - (1) The name and address of the solvent supplier,
 - (2) The date of the purchase,
 - (3) The type of the solvent, and
 - (4) The vapor pressure of the solvent measured in mm Hg at 20° C (68° F).
- ii. For the cold solvent parts washer (IA-1) all required records shall be retained for 5 years and made available to the District upon request. [Regulation 6.18, section 4.4.3]

¹⁸ Emissions from insignificant activities are *de minimis* by definition. [Regulation 5.21, section 2.3]

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. Unit Operation

- i. There are no routine reporting requirements.

b. TAC

- i. See Plantwide conditions.¹⁹

c. VOC

- i. There are no routine reporting requirements.

¹⁹ Emissions from insignificant activities are *de minimis* by definition. [Regulation 5.21, section 2.3]

Insignificant Activities

Equipment	Qty.	PTE (ton/yr)	Regulation Basis
VOC Storage Tanks 250 Gallon or less (water-fountain solution mix)	1	VOC – 0.01	Regulation 1.02, Appendix A
15 gallon cold solvent parts washer with secondary reservoir	1	VOC 0.32	Regulation 1.02, Appendix A
Indirect heat exchangers for building heat (various sizes 30 kBTU/hr – 225 kBTU/hr. Total capacity 2.665 MMBTU/hr)	24	NO _x – 1.14 VOC – 0.06	Regulation 1.02, Appendix A
MCS Array #1, inkjet serializer (U3-E22)	1	VOC – 0.30	Regulation 1.02, Section 1.38.1.2
MCS Array #2, inkjet serializer (U3-E23)	1	VOC – 0.60	Regulation 1.02, Section 1.38.1.2
Kirk-Rudy M215B, inkjet serializer (U3-E24)	1	VOC – 0.30	Regulation 1.02, Section 1.38.1.2
Kirk-Rudy 219-N UV-inkjet serializer (U3-E25)	1	VOC – 0.16	Regulation 1.02, Section 1.38.1.2
12 HP, gasoline powered portable emergency generator	2	VOC – 0.06 NO _x – 0.03 Each	Regulation 1.02, Section 1.38.1.2

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

Trivial Activities

Equipment	Regulation Basis
Maintenance brazing, soldering, and welding equipment	Trivial activity list, item 17

Source-Wide Activities Not Otherwise Regulated ²⁰

Equipment Description	Quantity	Make	Model
Industrial fork truck, LPG-powered engines	3	Toyota, 51 HP	8FGCU25
		Toyota, 53 HP	7FGCU25
		Clark, 47 HP	C25CL

²⁰ This table is for informational purposes only. The listed equipment emits zero or negligible air pollutants. There are no compliance monitoring, recordkeeping, or reporting requirements for any of the listed equipment.

Attachment A - Calculation Methodology

- To calculate VOC and HAP emissions from the presses in Emission unit U1:

$$\text{ink VOC emissions} = \left[(\# \text{ sheets}) \left(\frac{\text{paper area}}{L \times W} \right) \left(\frac{\text{fraction of paper covered with ink}}{\text{estimated}} \right) \left(\frac{\text{ink density on paper}}{(0.001 \text{ lb/ft}^2)} \right) (\text{ink VOC content}) \left(\frac{\text{VOC not retained in ink (90\%)}}{1} \right) \left(\frac{\text{lb}}{\text{ton}} \right) \right] \frac{\text{ton}}{\text{year}}$$

$$\text{Fountain solution VOC emissions} = \left[(\# \text{ sheets}) \left(\frac{\text{paper area}}{L \times W} \right) \left(\frac{\text{FS density on paper}}{(2.25 \times 10^{-5} \text{ gal/ft}^2)} \right) (\text{FS VOC content}) \left(1 - \frac{\text{ink coverage on paper (est)}}{1} \right) \left(\frac{\text{lb}}{\text{ton}} \right) \right] \frac{\text{ton}}{\text{year}}$$

$$\text{Blanket wash VOC emissions} = \left[\left(\frac{\text{BW usage}}{(\text{gal/ft}^2)} \right) \left(\frac{\text{plate area}}{\text{per plate}} \right) (\# \text{ plates}) \left(\frac{\text{BW VOC content}}{1} \right) \left(\frac{\# \text{ wash cycles}}{\text{day}} \right) \left(\frac{\text{lb}}{\text{ton}} \right) \right] \frac{\text{ton}}{\text{year}}$$

$$\text{Roller wash VOC emissions} = \left[\left(\frac{\text{RW usage}}{(\text{gal/ft}^2)} \right) \left(\frac{\text{plate area}}{1} \right) (\# \text{ plates}) \left(\frac{\text{RW VOC content}}{1} \right) \left(\frac{\# \text{ wash cycles}}{\text{day}} \right) \left(\frac{\text{lb}}{\text{ton}} \right) \right] \frac{\text{ton}}{\text{year}}$$

$$\text{Plate Cleaner VOC emissions} = \left[\left(\frac{\text{PC usage}}{(\text{gal/ft}^2)} \right) \left(\frac{\text{plate area}}{1} \right) (\# \text{ plates}) \left(\frac{\text{PC VOC content}}{1} \right) \left(\frac{\# \text{ wash cycles}}{\text{day}} \right) \left(\frac{\text{lb}}{\text{ton}} \right) \right] \frac{\text{ton}}{\text{year}}$$

To determine HAP emissions, multiply the VOC emissions by the fraction of the VOC that is HAP.

- For each piece of bindery equipment in U2 (E6 – E17), the emission factor is 0.0001 lb_{PM} per pound of paper processed. One thousand sheets of 28" × 40" weighs 80 pounds.

$$\text{PM} = \left[(\# \text{ sheets}) \left(\frac{\text{pounds}}{1000 \text{ sheets}} \right) \left(\frac{W \times L}{28 \times 40} \right) \left(\frac{0.0001 \text{ lb}_{\text{PM}}}{\text{lb}_{\text{paper}}} \right) \left(\frac{1 \text{ ton}}{2000 \text{ pounds}} \right) \right] \frac{\text{ton}}{\text{year}}$$

For the paper baler, E18, PM emissions are calculated with the same equation, except that the emission factor is 0.001 lb/lb.

- For the serializers, E15-E18:

$$\text{Ink VOC emissions} = \left[\left(\frac{\text{Print speed}}{(\text{ft/min})} \right) \left(\frac{\text{minutes}}{\text{operating}} \right) \left(\frac{\text{character}}{\text{height (ft)}} \right) \left(\frac{\text{ink coverage}}{(\text{fl.oz./ft}^2)} \right) \left(1 - \frac{\text{VOC retention in printed ink}}{1} \right) \left(\frac{\text{print coverage}}{1} \right) \left(\frac{1 \text{ gal}}{128 \text{ fl.oz.}} \right) \left(\frac{\text{VOC lb}}{\text{gal}} \right) \left(\frac{1 \text{ ton}}{2000 \text{ lb}} \right) \right] \frac{\text{ton}}{\text{year}}$$

$$\text{Cleaner VOC emissions} = \left[\left(\frac{\# \text{ cleanings}}{\text{day}} \right) \left(\frac{\text{fl.oz.}}{\text{cleaning}} \right) \left(\frac{1 \text{ gal}}{128 \text{ fl.oz.}} \right) \left(\frac{\text{lb VOC}}{\text{gal}} \right) \left(\frac{\# \text{ day}}{\text{year}} \right) \left(\frac{1 \text{ ton}}{2000 \text{ lb}} \right) \right] \frac{\text{ton}}{\text{year}}$$

To determine HAP emissions, multiply the VOC emissions by the fraction of the VOC that is HAP.

- For the VOC storage tanks, use an emission calculation-program or use the PTE values of 0.01 tons/year for the working fountain solution storage tank and 2.93 tons per year for the Safety Clean solvent storage tank
- For the cold solvent parts washer, use the PTE value of 0.32 tons per year.

7. For the emergency generators:

NO_x 0.202 lb/gal

TOC 0.376 lb/gal

CO 0.123 lb/gal

(from AP42, table 3.3-1)

8. For the natural gas burned in the building unit heaters:

$$\text{Emissions (tons)} = \text{gas burned} \times \text{emission factor} / 2000$$

As specified in the EPA publication AP-42, chapter 1.4, the emission factor for NO_x is 94 lb/10⁶ cubic feet. For VOC, the emission factor is 5.5 lb/10⁶ cubic feet.

9. For maintenance brazing and welding, use the PTE value of 0.2 tons per year.

Attachment B - Determination of Benchmark Ambient Concentration (BAC)

Category _____ Number _____

Compound name _____ CAS No. _____

Molecular weight _____

BAC_C = _____ $\mu\text{g}/\text{m}^3$, annual BAC_{NC} = _____ $\mu\text{g}/\text{m}^3$, _____ (avg period)
de minimis _____ lb/hr; _____ lb/_____; _____ lb/year

I. Carcinogen Risk - BAC_C (annual averaging period)Carcinogen ☐ YES ☐ NO

- ☐ IRIS 10^{-6} risk = _____ $\mu\text{g}/\text{m}^3$ URE = _____ $(\mu\text{g}/\text{m}^3)^{-1}$ Date _____
- ☐ Cal 10^{-6} risk = _____ $\mu\text{g}/\text{m}^3$ IUR = _____ $(\mu\text{g}/\text{m}^3)^{-1}$ Date _____
- ☐ Mich 10^{-6} risk = _____ $\mu\text{g}/\text{m}^3$ Date _____
- ☐ NTP Part A ☐ YES ☐ NO Part B ☐ YES ☐ NO
- ☐ IARC Group 1 ☐ YES ☐ NO Group 2A ☐ YES ☐ NO Group 2B ☐ YES ☐ NO
- ☐ ATSDR
- ☐ Sec. 3.3.4 Method # _____ 10^{-6} risk = _____ $\mu\text{g}/\text{m}^3$ Date _____
- ☐ Default 0.0004 $\mu\text{g}/\text{m}^3$

II. Chronic Noncancer Risk - BAC_{NC} (averaging period as specified)

- ☐ IRIS RfC = _____ $\mu\text{g}/\text{m}^3$, annual Date _____
- ☐ Cal REL = _____ $\mu\text{g}/\text{m}^3$, annual Date _____
- ☐ IRIS [1] RfD = _____ $\mu\text{g}/\text{kg}/\text{day} \times (70/20) =$ _____ $\mu\text{g}/\text{m}^3$, annual Date _____
- ☐ Mich ITSL = _____ $\mu\text{g}/\text{m}^3$, _____ averaging period Date _____
- ☐ TLV NIOSH = _____ $\mu\text{g}/\text{m}^3 \times 0.01 =$ _____ $\mu\text{g}/\text{m}^3$, 8-hour Date _____
- ☐ RTECS [1] _____ = _____ $\mu\text{g}/\text{m}^3$, annual Date _____
(describe calculation from Reg 5.20, sections 4.6 - 4.10)
- ☐ Default 0.004 $\mu\text{g}/\text{m}^3$

[1] To use data based upon an oral route of exposure, the District must make an affirmative determination that data are not available to indicate that oral-route to inhalation-route extrapolation is inappropriate.

III. De minimis calculations

- ☐ Carcinogen BAC_C _____ $\mu\text{g}/\text{m}^3 \times 0.54 =$ _____ lb/hour
BAC_C _____ $\mu\text{g}/\text{m}^3 \times 480 =$ _____ lb/year
- ☐ Chronic Noncancer Risk _____ (averaging period)
BAC_{NC} _____ $\mu\text{g}/\text{m}^3 \times$ F factor = _____ lb/(avg period)

BAC averaging period	F factor for avg period			
	Annual	24 hour	8 hour	1 hour
Annual	480			0.54
24 hours		0.12		0.05
8 hours			0.02	0.02
1 hour				0.001

[Regulation 5.22, table 1]

Prepared by _____ Date _____